We claim:

- 1 1. A method for operating a client to establish a network
- connection with a server, comprising the steps of:
- 3 negotiating environment parameters for establishing a
- 4 connection-oriented connection with said server;
- 5 said parameters including a request for said server to
- 6 provide a confirmation record; and
- 7 responsive to said request, receiving said confirmation
- 8 record.
- 1 2. The method of claim 1, said request being an implicit
- 2 request.
- 1 3. The method of claim 1, said request being an explicit
- 2 request.

- 1 4. The method of claim 1, said confirmation record
- 2 including a device name assigned by said server to said
- 3 client connection.
- 1 5. The method of claim 4, said confirmation record
- 2 including a response code indicative of the cause of a
- 3 failed connection.
- 1 6. The method of claim 5, responsive to said response
- 2 code, retrying said negotiating step.
- 1 7. The method of claim 1, said client being a Telnet
- 2 client, and said negotiating step including negotiating new
- 3 environment and terminal type parameters.
- 8. A method for operating a server in a network,
- 2 comprising the steps of:
- 3 receiving a connection request from a client;

| 4 | | Thiviting said Citent to negotiate environment |
|----|----|--|
| 5 | | parameters; |
| 6 | | responsive to client acceptance, negotiating said |
| 7 | | parameters; |
| 8 | | assigning a virtual device name to said client; and |
| 9 | | responsive to receiving a request for a confirmation |
| 10 | | record, providing to said client a confirmation record |
| 11 | | including, for a successful connection, said virtual |
| 12 | | device name and, for an unsuccessful connection, a |
| 13 | | return code indicative of the cause of failure of said |
| 14 | | connection. |
| | | |
| 1 | 9. | A system, comprising: |
| 2 | | a client; |
| 3 | | a server; |
| 4 | | a connection network for interconnecting said client |

and server; and

- said server selectively operable responsive to a
 request for a confirmation record from said client
 during negotiations for a connection oriented
 connection for providing in said confirmation record to
 said client, for a successful connection, a virtual
 device name assigned by said server to said client and,
 for an unsuccessful connection, a return code
 indicative of a cause of failure of said connection.
 - 1 10. The system of claim 9, said server being a Telnet 2 server and said client a Telnet client.
 - 1 11. The system of claim 10, said connection oriented
 2 protocol being a Telnet protocol according to which new
 3 environment parameters including an express or implicit
 4 request for said confirmation record may be negotiated.
 - 1 12. A program storage device readable by a machine,
 - 2 tangibly embodying a program of instructions executable by a
 - 3 machine to perform method steps for operating a client to
 - 4 establish a network connection with a server, said method

9

| 6 | negotiating environment parameters for establishing a |
|----|--|
| 7 | connection-oriented connection with said server; |
| 8 | said parameters including a request for said server to |
| 9 | provide a confirmation record; and |
| 10 | responsive to said request, receiving said confirmation |
| 11 | record. |
| | |
| 1 | 13. A program storage device readable by a machine, |
| 2 | tangibly embodying a program of instructions executable by a |
| 3 | machine to perform method steps for operating a server in a |
| 4 | network, said method steps comprising: |
| | |
| 5 | receiving a connection request from a client; |
| | |
| 6 | inviting said client to negotiate environment |
| 7 | parameters; |
| | |
| 8 | responsive to client acceptance, negotiating said |

parameters;

5 steps comprising:

| 11 | responsive to receiving a request for a confirmation |
|----|--|
| 12 | record, providing to said client a confirmation record |
| 13 | including, for a successful connection, said virtual |
| 14 | device name and, for an unsuccessful connection, a |
| 15 | return code indicative of the cause of failure of said |
| 16 | connection. |

assigning a virtual device name to said client; and

- 1 14. A computer program product or computer program element 2 for operating a client to establish a network connection 3 with a server according to method steps comprising:
- negotiating environment parameters for establishing a connection-oriented connection with said server;
- said parameters including a request for said server to provide a confirmation record; and
- 8 responsive to said request, receiving said confirmation 9 record.

14

15

| 15. A computer program product or computer program element |
|--|
| for operating a server in a network according to method |
| steps comprising: |
| receiving a connection request from a client; |
| inviting said client to negotiate environment |
| parameters; |
| |
| responsive to client acceptance, negotiating said |
| parameters; |
| assigning a virtual device name to said client; and |
| responsive to receiving a request for a confirmation |
| record, providing to said client a confirmation record |
| including, for a successful connection, said virtual |
| |

END9 2000 0172 US1

connection.

device name and, for an unsuccessful connection, a

return code indicative of the cause of failure of said